

Claim Rejections - 35 USC §103

In the Office Action, the Examiner has the following rejections under 35 USC §103:

1. Claims 1, 13 and 31 as being unpatentable over Hiraga et al. (US 6,139,321) in view of Harrah et al. (US 4,405,487) and Matsuura et al. (US 6,001,413).
2. Claims 2 and 14 as being unpatentable over Hiraga et al., Harrah et al. and Matsuura et al. and further in view of Begin et al. (US 5,310,410).
3. Claims 3 and 15 as being unpatentable over Hiraga et al., Harrah et al. and Matsuura et al. and further in view of Kakei et al. (US 3,931,789).
4. Claims 4 and 34 as being unpatentable over Hiraga et al. in view of Harrah et al., Matsuura et al. in view of Conte (US 6,149,392).
5. Claim 5 as being unpatentable over Hiraga et al., Harrah et al., Matsuura et al. and Conte and further in view of Begin et al.
6. Claim 6 as being unpatentable over Hiraga et al., Harrah et al., Matsuura et al. and Conte and further in view of Kakei et al.
7. Claims 7-8, 16-17 and 37 as being unpatentable over Hiraga et al. in view of Harrah et al., Matsuura et al. and in view of Begin et al.
8. Claims 9 and 18 as being unpatentable over Hiraga et al., Harrah et al., Matsuura et al. and Begin et al. and further in view of Kakei et al.
9. Claims 10, 11 and 40 as being unpatentable over Hiraga et al. in view of Harrah et al., Matsuura et al. in view of Begin et al. and in view of Conte.
10. Claim 12 as being unpatentable over Hiraga et al., Harrah et al., Matsuura et al., Begin et al. and Conte and further in view of Kakei et al.
11. Claims 32 and 33 as being unpatentable over Hiraga, Harrah, and Matsuura et al. and further in view of Zheng (US 6,124,215).
12. Claims 35 and 36 as being unpatentable over Hiraga, Harrah, Matsuura et al. and Conte and further in view of Zheng.
13. Claims 38-39 and 45-46 as being unpatentable over Hiraga, Harrah, Matsuura et al. and Begin and further in view of Zheng.
14. Claims 41 and 42 as being unpatentable over Hiraga, Harrah, Matsuura et al., Begin and Conte and further in view of Zheng.
15. Claims 43 and 44 as being unpatentable over Hiraga, Harrah, and Matsuura et al. and further in view of Zheng

16. Claims 47 and 51 as being unpatentable over Hiraga, Harrah and Matsuura et al. and further in view of Smithgall et al. (US 4,225,805).
17. Claim 48 as being unpatentable over Hiraga, Harrah, Matsuura et al. and Conte and further in view of Smithgall.
18. Claims 49 and 52 as being unpatentable over Hiraga, Harrah, Matsuura et al. and Begin and further in view of Smithgall; and
19. Claim 50 as being unpatentable over Hiraga, Harrah, Matsuura et al., Begin and Conte and further in view of Smithgall.

Each of these rejections is respectfully traversed.

As Applicants explained in depth in its Appeal Brief, the claims of the present application are nonobvious. Applicants continue to assert the nonobviousness of these claims for the reasons discussed in the Appeal Brief.

Additionally, independent Claims 1, 4, 7 and 10 of the present application all recite the feature of a liquid phase film deposition chamber while independent Claims 13 and 16 recite the feature of an EL material deposition chamber.

Each of the rejections in the Office Action relies upon Hiraga as the primary reference. In these rejections, the Examiner contends that Hiraga discloses a liquid phase film deposition chamber (no mention appears to be made of an EL material deposition chamber) but fails to state where this claimed feature is allegedly disclosed in Hiraga (no other reference is cited for this feature; the Examiner cites the other references as allegedly showing other claimed features)¹.

¹ In the Office Action, the Examiner argues that “one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.” Applicants are not doing so. Instead, the Examiner is relying on a certain reference (and no other reference) to allegedly disclose a feature of the claims of the present application. In its response, Applicants are showing that this reference is deficient and does not show this claimed feature or that no showing has been made as to where this feature is allegedly shown. As the other references are not being cited to show this feature, there is no need to discuss these references or combination therewith. Accordingly, Applicants are showing how the Examiner’s rejection is deficient in failing to show where the claimed feature is found in the cited references. Such an argument is perfectly acceptable.

Hence, the Examiner has failed to establish a prima facie case of obviousness. Accordingly, the Examiner needs to either withdraw these rejections or issue a new office action clearly showing and explaining where Hiraga allegedly discloses this claimed feature.

Further, independent Claims 1, 4, 7 and 10 provide that the liquid phase film deposition chamber is provided with a mechanism for oxidizing an element belonging to Group 1 or 2 of the periodic table (independent Claims 13 and 16 have a somewhat similar claimed feature). This results in oxygen being removed from the interior of the liquid phase film deposition chamber.

In the Office Action, the Examiner admits that Hiraga does not disclose such a feature but contends that Harrah teaches use of a moisture getter comprising a readily oxidizable metal in a closed container for the purpose of scavenging moisture and cites col. 1, lns. 11-14 and col. 2, ln. 68 in Harrah in support thereof. The Examiner then argues that Hiraga and Harrah can be combined in order to scavenge moisture in the chamber in Hiraga. Applicants respectfully disagree with the Examiner's use of Harrah.

More specifically, Applicants do not believe that one could easily be led to the effect of decreasing oxygen of the present invention by Harrah's general purpose regarding the desire to scavenge moisture and a reaction example of zinc and water without using improper hindsight reconstruction based on the claims of the present application. As a result, it is respectfully submitted that the claimed invention cannot properly be achieved by combining these references.

Accordingly, it is respectfully submitted that rejections in the present application are improper. Further, the claims of the present application are patentable over the cited references. Therefore, it is requested that each of these rejections be withdrawn.